ISO9001:2015 Quality System Certification

AMZ070 W01 RPDW

SERIES SPECIFICATION

Dedicated to creating the best intelligent control terminal possible

catalogs

1. Product description

1.1 Product Model

model numbers	Specification
AMZ070W01RPDW	AMZ Series,7 inch,DC10-30V,Serial Port 1:RS485,128Mbyte SPI Nand Flash,Resistive Touch;

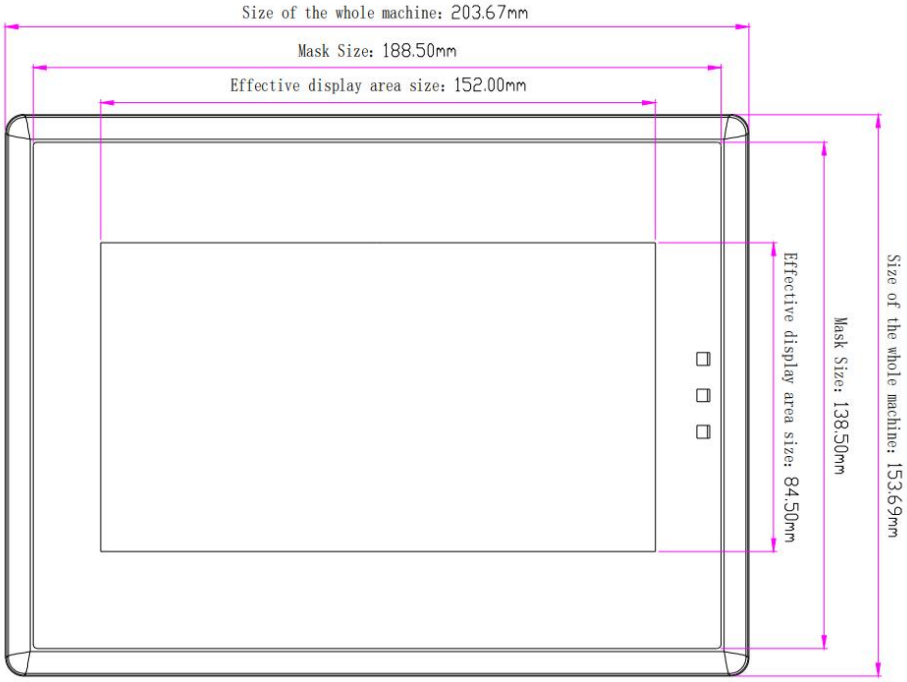
1.2 Model Definition

The model number of the product is defined in the figure below:

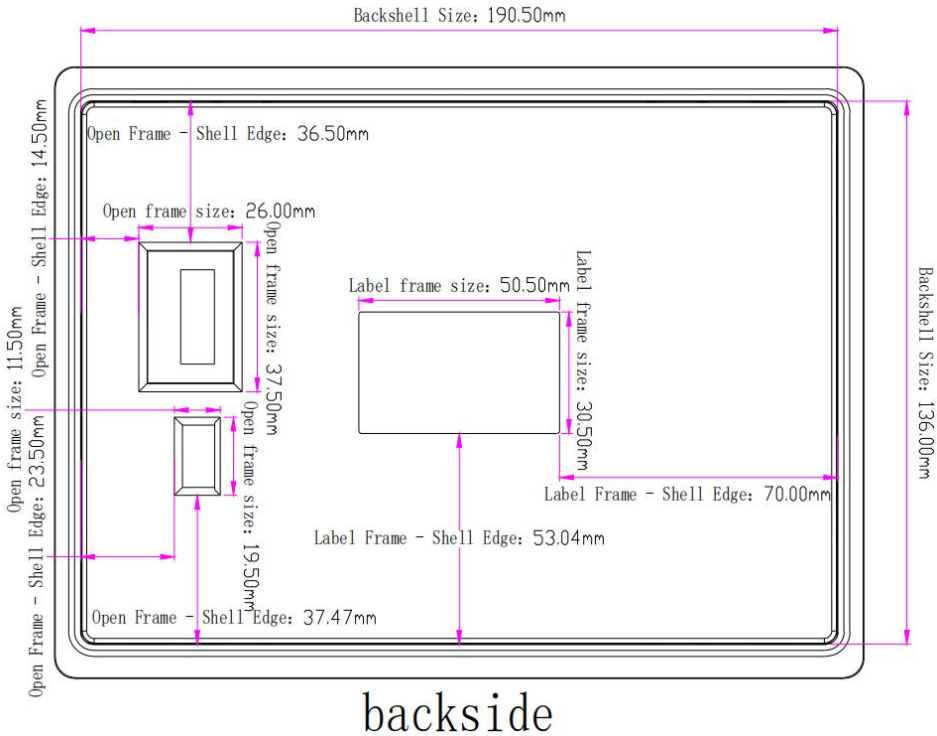
AMZ070W01RPDW	
AMZ	AMZ product line;
070	Represents product model size 7”；
W01	Memory capacity and FLASH type. W01: 32MB DDR2+ 128Mbyte SPI NAND FLASH; W02: 32MB DDR2+ 16Mbyte SPI NOR FLASH; W06: 8MB DDR2+ 16Mbyte SPI NOR FLASH;
R	R: for resistive screen; C: for capacitive screen;
P	P indicates that the product is a 6-position 3.5mm plug-in terminal block;
D	D: Indicates that communication serial port 1 is 485;
W	G: indicates housing color gray; W: indicates housing color white;

1.3 Product Size

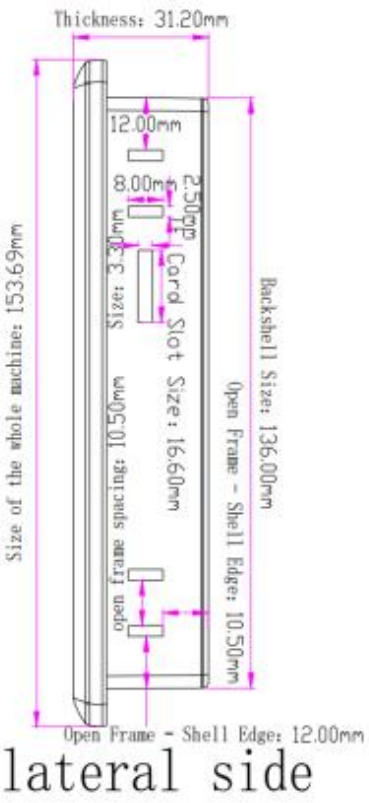
Display s	Product Model	Size of the whole machine	Effective display area size	Hole Size	Recommended opening size
7 inches.	AMZ070W01RPDW	203.67*153.69*31.2mm	152*84.5mm	190.5*136mm	192.5*138mm

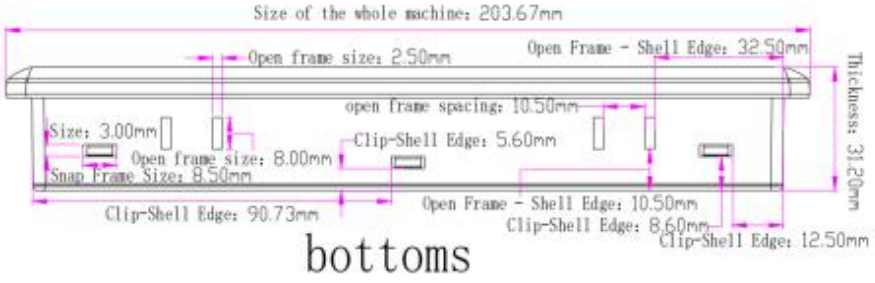


positively



backside





1.4 Product Parameters

Product Specification		
hardware performance	model number	AMZ070W01RPDW
	monitor	7" TFT LCD
	Resolution (Px)	800X480
	coloration	260,000 colors
	luminance	400 cd/m^2
	Backlight	LED (supports backlight adjustment)
	LED Lifetime	20,000 hours
	touchscreens	4-wire industrial resistive touch screen (surface hardness 4H), can be customized capacitive touch screen

	CPU	32-bit 600MHz ARM9 with built-in 32MB DDR memory
	memory	128Mbyte SPI Nand Flash
	RTC	Real-time clock built-in
	4G	unsupported
	buzzers	have
	Power down data saving	be in favor of
	USB port	1 USB2.0 Device port, 1 USB2.0 HOST port Note: Press and hold the screen to power on for 5 seconds, automatically enter the system parameter setting interface, by selecting USB download. or U disk download to switch the download mode
	Program download method	USB, USB flash drive, TF card download
	USB flash drive	be in favor of
	communication port	AMZ070W01RPDW: Serial port 1:RS485;
Electrical Specifications	rating	Maximum 3.5W
	voltage range	DC 10-30V
	power protection	With +/-2KV lightning surge protection capability
	Permissible loss of power	<5ms
	CE&ROHS	Comply with EN61000-6-2:2005, EN61000-6-4:2007 standards; lightning surge +/-2KV, group pulse +/-4KV; electrostatic contact discharge +/-8KV; electrostatic air discharge +/-15KV.
Environmental specifications	operating temperature	-10℃~50℃
	Storage temperature	-30℃~70℃
	Environmental humidity	10~90%RH (non-condensing)
	seismic defenses	10-25 Hz (X, Y, Z directions, 2g/30 min)

	Cooling method	natural air cooling
Other parameters	protection class	IP65 front panel (for installation with flat panel cabinet), IP20 rear enclosure
	Size of the whole machine	203.67*153.69*31.2mm
	Effective display area size	152*84.5mm
	Hole Size	190.5*136mm
	Recommended opening size	192.5*138mm
	Net weight	400g
	Net weight	Top spot:HMIStudio

2.Hardware Introduction

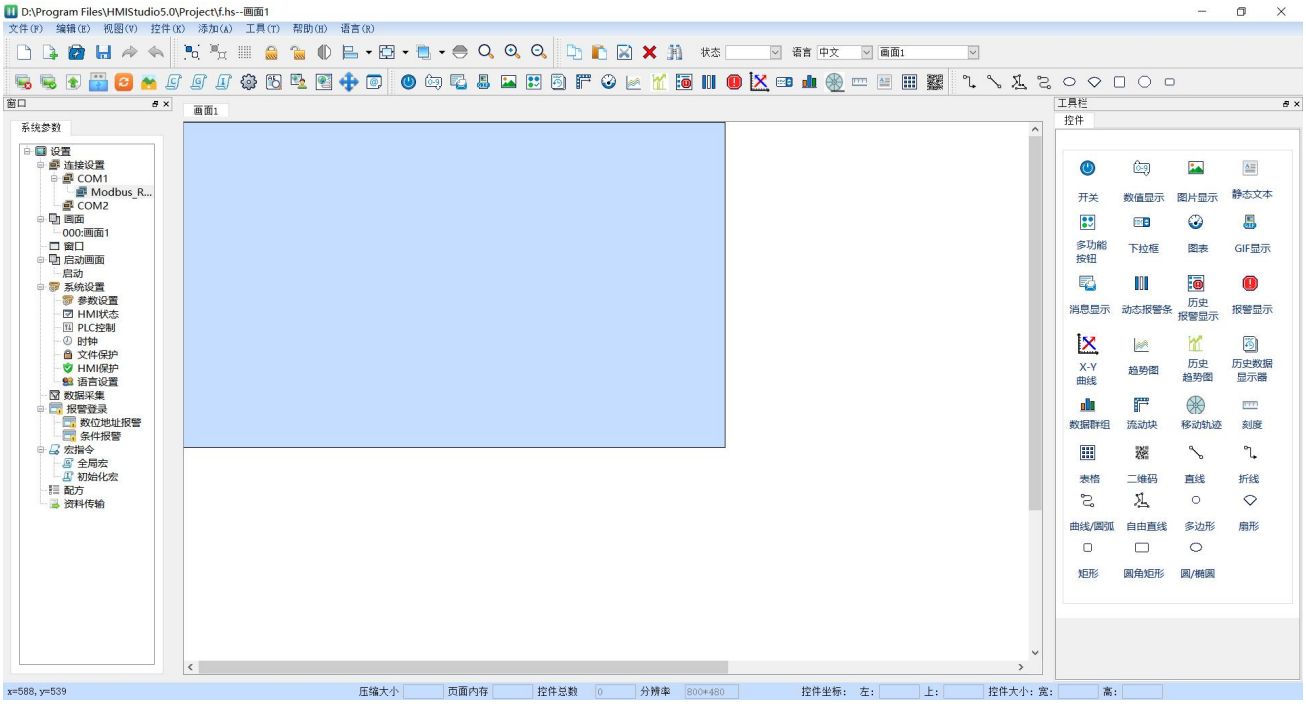
2.1 Terminal Block Pin Definition

Port Definition	
Device Location Number	**clarification**
①	Power and communication ports
②	USB Type A Download Port
③	TF card download port
④	SIM IoT payment (reserved)

AMZ070W01RPDW Power and Communication Port Definitions			
Pin	**define**	**power supply**	**Serial port 1 RS485**
1	0V	Negative power input	
2	NC	unoccupied	
3	NC	unoccupied	
4	RS485B1		RS485B1 (-)
5	RS485A1		RS485A1 (+)
6	DC+24V	Power Positive Input	

3. Description of the host configuration software

3.1 Development software--- Corresponding software HMIStudio



The upper configuration software **HMIStudio** is a set of customers can be arbitrary editing of the upper software, customer applications are all based on the development of the upper software, the upper software consists of a wealth of control composition, any combination, so as to realize the functions desired by the customer:

Controls are included:

switch button	Includes “bit buttons”, “word buttons”, “indicator lights”, “screen buttons”, “function buttons”, and “multistate buttons”. “Function buttons” and ‘Multi-state buttons’ can be used to touch the connected device and monitor the status.
Numerical input and display	Includes multiple binary inputs and displays, ASCII inputs and displays for displaying the value of the monitored address, and a time display for showing real-time time.
mobile block	Animated graphics that simulate the state of liquid flow in a pipe
Static text/table/scale	A variety of basic shapes, including lines, circles, ellipses, rectangles, etc.
Image display and gif animation	Picture display box showing one or more pictures
meter	Bar graphs, gauges, circles, showing some state value of the data

slide switch	Create a slider area to display values, or change the value of a specified word address by pressing the slider to move it.
tire	Slide to display the data.
Formulation Display	Tabular display of defined recipe records.Note: To use this control you need to create a recipe first.
message display	Displaying pre-set messages
Alarm display	Displays information about alarms (digital and analog) that have occurred on the device. You must configure the alarm settings before using this control.(Up to 512 digital alarms and 32 conditional alarms can be created)
Dynamic Alarms	Used to display the current alarm, which is different from the alarm control in that the dynamic alarm bar displays the current alarm in the form of scrolling text.
XY curve	Real-time dynamic display of data from the data collector
historical curve	Display of the data saved by the history collector in the form of a curve
formulas	Create a menu of similar remedies(Each recipe supports up to 200 data, and up to 200 recipes can be created)
Multi-function buttons	An on/off button, with which the various functional requirements can be reached easily and quickly
trend chart	Plot reference curves of multiple data to accurately visualize the trend of a value over time
drop-down box	Used to select the corresponding state function
data cluster	Display the data change from register address N to register address N in the form of a curve.
trajectory	Control address data by dragging a scrolling block
QR code	Dynamically generated QR code, access to web site by scanning, payment and other functions(Maximum 10 QR codes for a single screen, no more than 1000 QR codes for a configuration)

Extended functionality of the host machine configuration software:

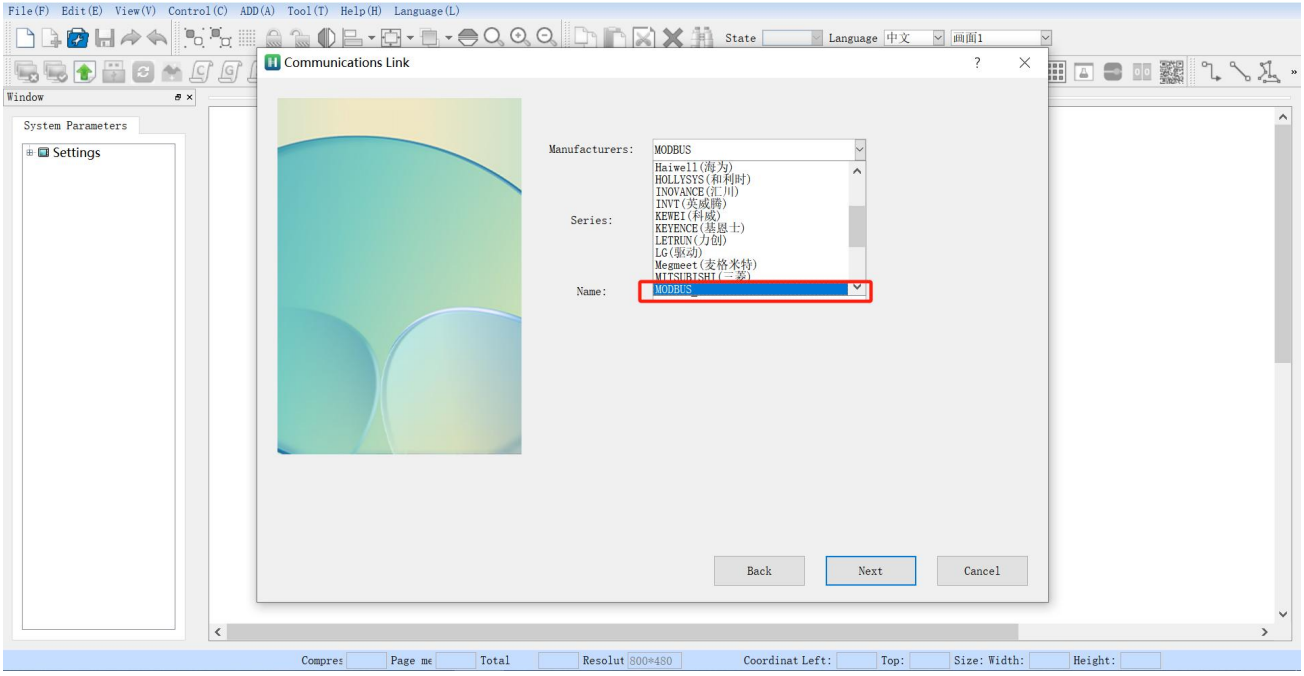
macro instruction	C programming to implement a variety of more complex logic or functions
PLC control	HMI control via PLC (switching of HMI screen, modification of recipes,

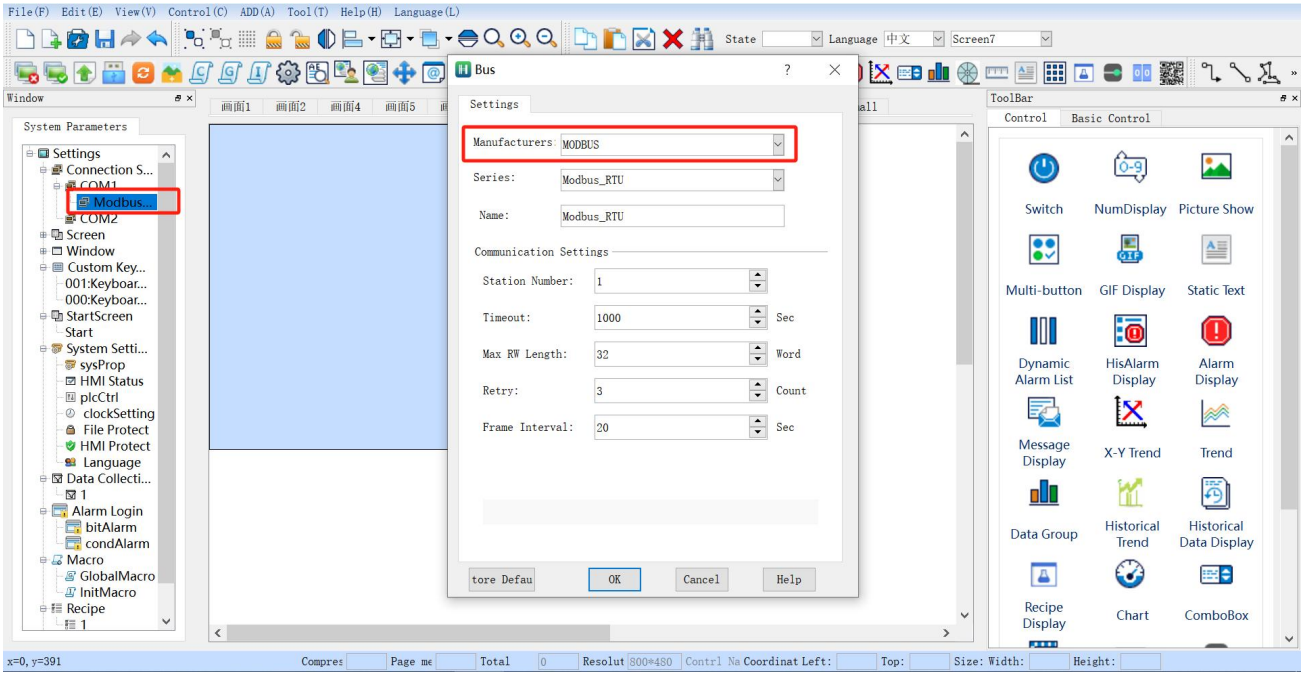
	writing of recipe data to PLC, switching of current user level via PLC register values)
multilingualism	Multi-language support (up to 6 languages)
data acquisition	Data acquisition of temperature, pressure, humidity, etc. is possible(Up to 32 can be created for data collection)
data transmission	Refers to the transfer of data on the same type of address, the transfer can be periodic(Transfers as fast as 1 second)，It can also be triggered
HMI Protection	The HMI can be used normally within a certain period of time, if the time exceeds the time specified by the user, the HMI will jump to the specified screen previously set by the user, in the specified screen, the user only places the function button below the “panel protection unlock button”.
document protection	Do you need to enter a password to open the project?
User password level	Set user privileges and passwords, access to the appropriate privileges need to enter the appropriate passwords(8 user levels in total)
boot screen	User can customize the boot-up Logo screen
Offline simulation	Before compiling and downloading the screen to the HMI device, you can use the offline simulation function that comes with HMIStudio to check the correctness of the configuration screen and the effect of the display.
Online Simulation	Online simulation allows you to communicate with plc and other related devices through your personal computer (HMI configuration software needs to be installed first) without using HMI.
Supports multiple controller communication protocols	Suitable for a variety of PLC, inverter, servo controller, microcontroller control system, etc. (Mitsubishi, Panasonic, Omron, Delta, Xinjie, Yonghong, Siemens, Keens, LG, Modbus and customization and other protocols) the user only needs to operate directly in the software to select the call can be.
Custom Add Gallery	Support for customizing the gallery, users can intercept their favorite images loaded into a custom gallery to call according to need
keypads	Support Chinese and English keyboard input, the user can freely switch the use of
image archive	Rich gallery, support Png, Jpg, Gif, Bmp and other formats of the picture, vector gallery, any zoom non-aliased

3.2 Protocol configuration

Users can run MODBUS RTU, Mitsubishi, Siemens, Delta, Xinjie and other protocols through the host computer configuration.

Open **HMIStudio** configuration software, click [**New Project**], you can select the desired communication protocol in [**New Project**]. You can also modify and select your desired communication protocol within the project, open the protocol below the serial port 1 port settings to change, as shown below.

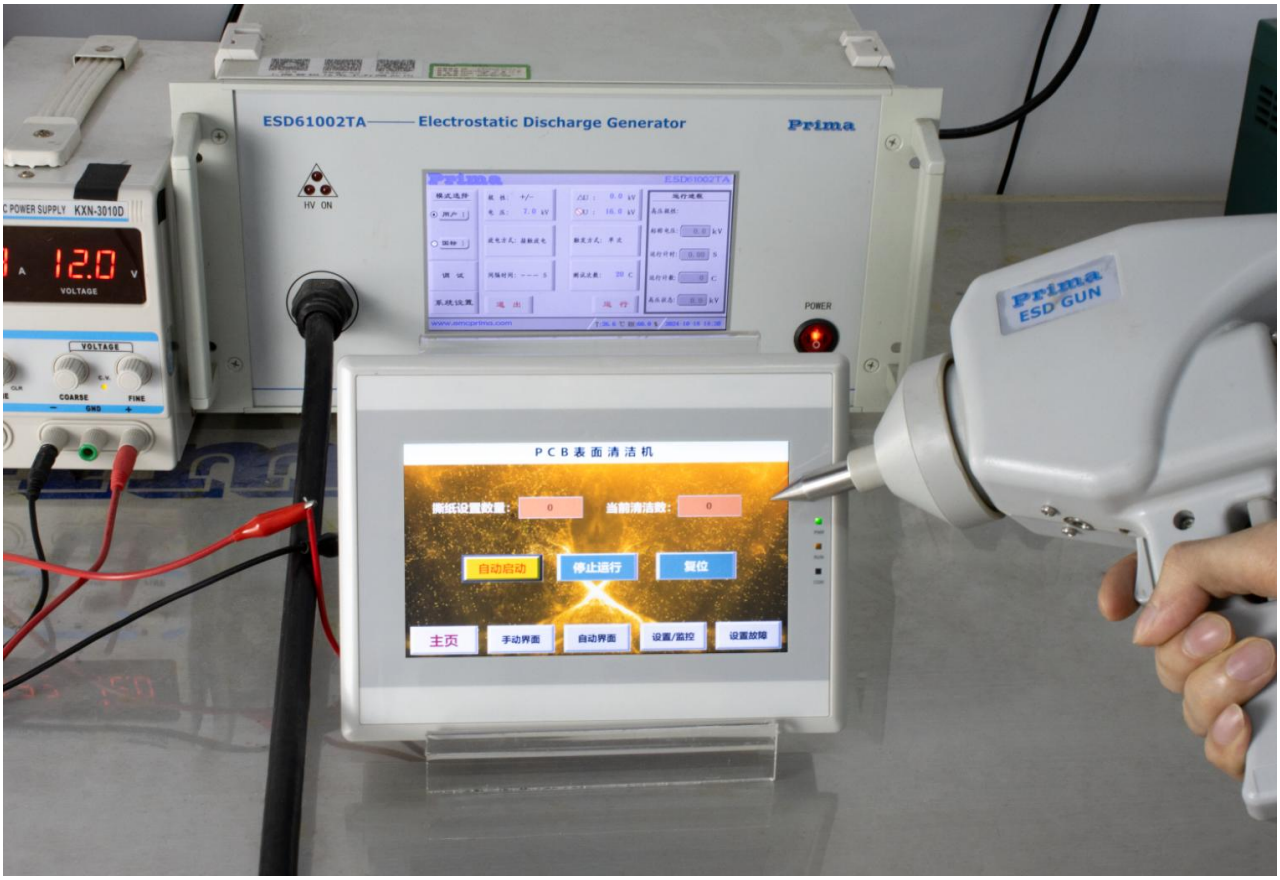




4.Reliability Testing

All products are subjected to a series of process-oriented reliability tests before mass production: ESD test, high and low temperature aging test, group pulse test, etc. to ensure product quality.

4.1 ESD testing



Implementation standard: IEC 61000-4-2

Test process: Place the product flat on the test bench, contact and air discharge the touch screen iron buckle periphery and display area in turn, as shown in the above figure, observe whether the screen reset and restart, display abnormalities and other phenomena.

Test Data

Product Model	Type of discharge	discharge value	Test results
AMZ070W01RPDW	exposure	+/-8KV;	No reboot, crash, splash screen and other abnormal phenomena. Normal function
	atmosphere	+/-15KV;	No reboot, crash, splash screen and other abnormal phenomena. Normal function

4.2 High and low temperature aging test

Test environment: high and low temperature aging test box in the

Test Temperature: -10°~50

Test process: Place the product in the high and low temperature aging test box. Through the 50 ° high temperature, -10 ° low temperature, high and low temperature alternately changing the aging test, observe the test process and test after the test whether there is a reset restart, display anomalies, functional abnormalities and other phenomena.

Test Data

Product Model	temp	humidity level	Test results
AMZ070W01RPDW	High temperature 50°	60%	No reboot, crash, splash screen and other abnormal phenomena. Normal function
	Low temperature -10°	60%	No reboot, crash, splash screen and other abnormal phenomena. Normal function
	Alternating high and low temperatures (-10°~50°)	60%	No reboot, crash, splash screen and other abnormal phenomena. Normal function

4.3 Group Pulse Test

Implementation standard: IEC 61000-4-4

Test process: place the product flat on the test bench, power the screen through the pulse group generator coupled with the power supply after the pulse group, such as the above figure, observe whether the screen reset restart, display abnormalities and other abnormal phenomena

Test Data

Group Pulse Test	test standard	test standard	Test results
AMZ070W01RPDW	EFT +/-4KV;	power port (of a computer)	+/-1KV screen without flickering, no reboot, crash, splash screen and other abnormal phenomena, normal functions
		communication port	+/-2.5KV screen without flickering, no reboot, crash, splash screen and other abnormal phenomena, functionally normal

4.4 Lightning surge test

Test Data

Product Model	coupling method	impedance	Test results
AMZ070W01RPDW	COUPL	12Ω	2KV screen without flickering, no restart, dead, splash screen and other abnormal phenomena, the function is normal

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